REMARKS

The Office Action of 04/28/2004 has been carefully considered. Reconsideration in view of the present Remarks is respectfully requested.

Claims 7-9 were rejected as being unpatentable over Arimilli in view of Jeddeloh. This rejection is respectfully traversed.

The present invention relates to an arrangement for accessing a shared resource. In accordance with an exemplary embodiment of the invention, access is controlled in accordance with a succession of defined states. Each state defines which processor or processors are allowed to access the resource during that state. A state may correspond to a particular processor. Alternatively, a state may be a "free" state in which arbitration between multiple requests is carried out based on priority. The invention is defined in independent claims 7, 8 and 9.

Such an arrangement is not taught or suggested by the cited references. Although both Arimilli and Jeddeloh relate to the same area of endeavor, the systems described by the two references are fundamentally incompatible. Hence, one of ordinary skill in the art would not have combined the teachings of the references in the manner suggested in the Office Action.

In particular, Arimilli relates to an access arrangement in which access is controlled by a pseudo-random number (PN) generator 24. As described in the paragraph bridging columns 3 and 4 of Arimilli and the two following paragraphs, selected bits of a PN are decoded, each of the resulting decoding signals being assigned to a processor. Priority weighting is achieved by assigning different numbers of decoded signals to different processors. At any given cycle, access is granted to the processor selected by the decoded signals produced from the PN.
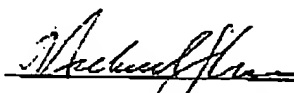
2

In Jeddeloh, by contrast, as shown in Figure 3 thereof, at any given cycle, acc ss is granted to the device with the highest priority. Over the course of time, priorities are reordered. In particular, a desired weighted bandwidth is specified, e.g., 8, 8, 2, 2, 1, 1, indicating that, as compared to the devices having a weight of 1, the devices having a weight of 2 should enjoy twice as great access to the resource, and the devices having a weight of 8 should enjoy access 8 times as great. When a device has accessed the resource a number of times equal to its weight, its priority is set to zero, and priorities of the other devices are incremented.

It would not have been obvious to one of ordinary skill in the art to combine the teachings of the references in the manner set forth in the Office Action. In particular, whereas Arimilli is *non-deterministic* in its operation (having a significant element of randomness), the operation of Jeddeloh is *deterministic*. In this respect, the systems described by the two references are fundamentally incompatible.

Furthermore, the "states" described by Jeddeloh are not states at all in the sense of the states of the present invention. Rather, the states of Jeddeloh are simply snapshots of the operation of Jeddeloh beginning from a particular arbitrary initial condition. The states are not repeated. For example, if the state after power-up is "state 1," the state at power-down might be "state 1,234,567," with all the states in between bearing successive numbers. The states are not "implemented in a predetermined manner" as in the case of the present invention.

3

Accordingly, claims 7-9 are believed to patentably define over the cited references. Withdrawal of the rejection and allowance of claims 7-9 is respectfully requested.

Respectfully submitted,

Michael J. Ure, Reg. 33,089

Dated: May 12, 2004

4